



PTO/SB/08A (08-03)

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Substitute for form 1449A-B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Complete if Known

Application Number	10/716,393
Filing Date	November 17, 2003
First Named Inventor	Quan Nguyen
Group Art Unit	1645
Examiner Name	Unassigned
Attorney Docket Number	70-000410US
Date Submitted	February 15, 2006

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			
/AB/	1	5,801,007		Simpson et al.	09-01-1998	
	2	6,017,758		Haselton et al.	01-25-2001	
	3	2001/0024830		Haselton et al.	09-27-2001	
↓	4	6,310,189		Fodor et al.	10-30-2001	

FOREIGN PATENT DOCUMENTS

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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/AB/	5	Chiu, YL and Rana, TM (2002) RNAi in human cells: basic structural and functional features of small interfering RNA, <i>Mol. Cell</i> , 10(3): 549-561.	
/AB/	6	Shah, S. et al. (2005) Light-activated RNA interference. <i>Angew. Chem. Int. Ed.</i> 44, 1328-1332	

Examiner Signature	/Amy Bowman/	Date Considered	05/23/2007
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/AB/	1	Haseltson, III et al.		6,017,758	06-25-2000	

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/AB/	2	MCCAFFREY et al. (2002) "RNA interference in Adult Mice" <u>Nature</u> 418: 38-39	
/AB/	3	SIXOU et al. (1994) "Intracellular oligonucleotide hybridization detected by fluorescence resonance energy transfer (FRET)" <u>Nucleic Acids Research</u> 22(4): 662-668.	
/AB/	4	SOKOL et al. (1998) "Real time of DNA-RNA hybridization in living cells" <u>PNAS</u> , 95:11538-11543.	

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/AB/	1	5,430,175	A1	Hess et al.	07-04-1995	
	2	5,635,608	A1	Haugland et al.	06-03-1997	
	3	5,872,243	A1	Gee et al.	02-16-1999	
	4	5,998,580	A1	Fay et al.	12-07-1999	
	5	6,043,065	A1	Kao et al.	03-28-2000	
	6	6,242,258	B1	Haselton et al.	06-05-2001	
	7	6,410,255	B1	Pollok et al	06-25-2002	
	8	6,410,327	B2	Haselton, III, et al	06-25-2002	
	9	2002/0162126	A1	Beach et al.	10-31-2002	
	10	20020173478	A1	Gewirtz	11-21-2002	
↓	11	2002/0182223	A1	LaCount et al.	12-05-2002	

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		Office	Number	Kind Code (if known)				
/AB/	12	CA	2,359,180		Kreutzer	07-18-2001		
	13	WO	2001/68836		Genetica, Inc.	09-20-2001		
	14	WO	2001/70949		Benitec Australia Ltd	09-27-2001		
	15	WO	2001/75164		Whitehead Institute for Biomedical Res.	10-11-2001		
↓	16	WO	2003/040375		Mirus Corp.	05-15-2003		

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/AB/	17	Agami (2002) "RNAi and related mechanisms and their potential use for therapy" <i>Curr Opin Chem Biol</i> 6:829-834	

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		Examiner Name	Unassigned
		Attorney Docket Number	70-000410US
		Date Submitted	December 7, 2004

/AB/	18	Amarzguioui et al. (2003) "Tolerance for mutations and chemical modifications in a siRNA" <u>Nucl. Acids Res.</u> , 31:589-595	
	19	Ando et al. (2001) "Photo-mediated gene activation using caged RNA/DNA in zebrafish embryos" <u>Nature Genetics</u> , vol. 28:2001:317-325.	
	20	Bishop et al. (2000) "40-Aminomethyl-2,20-bipyridyl-4-carboxylic Acid (Abc) and Related Derivatives: Novel Bipyridine Amino Acids for the Solid-Phase Incorporation of a Metal Coordination Site Within a Peptide Backbone" <u>Tetrahedron</u> 56:4629-4638	
	21	Bonetta (2002) "Getting Proteins Into Cells: The Discovery and commercialization of protein transduction domains frees researchers from transfection troubles" <u>The Scientist</u> 16:38.	
	22	Byrom et al. "Visualizing siRNA in mammalian cells: Fluorescence analysis of the RNAi effect" <u>Ambion TechNotes</u> 9(3) June 2002.	
	23	Caplen (2002) "A new approach to the inhibition of gene expression" <u>Trends in Biotech</u> 20(2): 49-51.	
	24	Chaulk et al. (1998) "Caged RNA: photo-control of a ribozyme reaction" <u>Nucleic Acids Res.</u> (1998) 26(13): 3173-3178.	
	25	Ching et al. (1996) "Polymers As Surface-Based Tethers with Photolytic triggers Enabling Laser-Induced Release/Desorption of Covalently Bound Molecules" <u>Bioconjugate Chemistry</u> 7(5):525-528.	
	26	Conrad II et al. (2000) "p-Hydroxyphenacyl Phototriggers: The reactive Excited State of Phosphate Photorelease" <u>J. Am. Chem. Soc.</u> 122:9346-9347.	
	27	Conrad II et al. (2000) "New Phototriggers: ¹ Extending the p-Hydroxyphenacyl π-π* Absorption Range" <u>Org. Lett.</u> 2:1545-1547.	
	28	Czauderna et al. (2003) "Structural variations and stabilizing modifications of synthetic siRNAs in mammalian cells" <u>Nucl Acids Res</u> 31:2705-2716.	
	29	Ding et al. (2001) "Size-dependent control of the binding of biotinylated proteins to streptavidin using a polymer shield" <u>Nature</u> 411:59-62.	
	30	Elbashir et al. (2001) "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells" <u>Nature</u> 411:494-498.	
	31	Elbashir et al. (2002) "Analysis of gene function in somatic mammalian cells using small interfering RNAs" <u>Methods</u> 26:199-213	
	32	Fischer et al. (2001) "Cellular Delivery of Impermeable Effector Molecules in the Form of Conjugates with Peptides capable of Mediating Membrane Translocation" <u>Bioconju Chem.</u> , 12:825-841.	
▼	33	Furuta et al. (1999) "Brominated 7-hydroxycoumarin-4-ylmethyls: novel photolabile protecting groups with biologically useful cross-sections for two photon photolysis" <u>Proc. Natl. Acad. Sci.</u>	

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		96(4):1193-1200.	
/AB/	34	Galaev and Mattiasson (1999) "Smart' polymers and what they could do in biotechnology and medicine" <u>Trends Biotech.</u> 17:335-340.	
	35	Givens et al. (2000) "A New Phototriggers 9: p-Hydroxyphenacyl as a C-Terminal Photoremovable Protecting Group for Oligopeptides" <u>J. Am. Chem. Soc.</u> 122:2687-2697.	
	36	Grabarek and Glover (2003) "RNA interference by production of short hairpin dsRNA in ES cells, their differentiated derivatives, and somatic cell lines" <u>BioTechniques</u> 34:734-744.	
	37	Gossen and Bujard (1992) "Tight control of gene expression in mammalian cells by tetracycline-responsive promoters" <u>Proc. Natl. Acad. Sci. USA</u> 89:5547-5551.	
	38	Gupta et al (2004) "Inducible, reversible, and stable RNA interference in mammalian cells" <u>Proc. Natl. Acad. Sci. USA</u> 101:1927-1932.	
	39	Hannon (2002) "RNA interference" <u>Nature</u> 418(6894):244-51	
	40	Hermann et al. (2003) "An epi-allelic series of p53 hypomorphs created by stable RNAi produces distinct tumor phenotypes in vivo" <u>Nat Genet.</u> 33(3):396-400.	
	41	Holen et al. (2003) "Similar behavior of single-strand and double-strand siRNAs suggests that they act through a common RNAi pathway" <u>Nucl. Acids Res.</u> 31:2401-2407.	
	42	Hutvagner & Zamore (2002) "RNAi: nature abhors a double-strand" <u>Curr Opin Genet Dev.</u> 12(2):225-32.	
	43	Kaplan et al, (1988) "Photolabile chelators for the rapid photorelease of divalent cations" <u>Proc Natl Acad Sci USA</u> 85(17):6571-5.	
	44	Kossel et al. (2001) "A caged Ab reveals an immediate/instructive effect of BDNF during hippocampal synaptic potentiation" <u>Proc. Natl. Acad. Sci. USA</u> 98:14702-14707.	
	45	Lackey et al (2002) "A biomimetic pH-responsive polymer directs endosomal release and intracellular delivery of an endocytosed antibody complex" <u>Bioconjugate Chem</u> 13:996-1001.	
	46	Lee et al. (1997) "Caged Nicotinic Acid Adenine Dinucleotide Phosphate: Synthesis And Use" <u>J Biol Chem</u> 272(7):4172-8.	
	47	Li et al. (1998) "Cell-permeant caged InsP ₃ ester shows that Ca ²⁺ spike frequency can optimize gene expression" <u>Nature</u> 392:936-541.	
	48	Lipp & Niggli (1998) "Fundamental calcium release events revealed by two-photon excitation photolysis of caged calcium in Guinea-pig cardiac myocytes" <u>J Physiol</u> 508.3, 801.	
	49	Lin et al. (2002) "Spatially discrete, light-driven protein expression" <u>Chem. Biol.</u> 9:1347-1353.	
▼	50	Martinez et al. (2002) "Single-stranded antisense siRNAs guide target RNA cleavage in RNAi" <u>Cell</u> 110:563-574	

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/AB/	51	Marriot et al. (1999) "Caged peptides and proteins: new probes to study polypeptides function in complex biological systems" <u>Trends Plant Sci</u> 4(8):330-334.	
	52	Mastrobattista et al (2002) "Functional Characterization Of An Endosome-Disruptive Peptide And Its Application In Cytosolic Delivery Of Immunoliposome-Entrapped Proteins" <u>J Biol Chem</u> 277:27135-43.	
	53	McCray et al. (1980) "A new approach to time-resolved studies of ATP-requiring biological systems; laser flash photolysis of caged ATP" <u>Proc. Natl. Acad. Sci. USA</u> 77:7237-41.	
	54	McManus et al. (2002) "Gene silencing in mammals by small interfering RNAs" <u>Nat Rev Genet.</u> 3(10):737-47.	
	55	Miller et al (1998) "Flash decaging of tyrosine sidechains in an ion channel" <u>Neuron</u> 20, 619-624.	
	56	Miyata et al. (1999) "A reversibly antigen-responsive hydrogel" <u>Nature</u> 399:766-769.	
	57	Monroe et al. (1999) "Targeting expression with light using caged DNA" <u>J Biol Chem.</u> 274(30):20895-20900.	
	58	Murthy et al. (1999) "The design and synthesis of polymers for eukaryotic membrane disruption" <u>Journal of Controlled Release</u> 61:137-143	
	59	Murthy et al. (2003) "Bioinspired pH-responsive polymers for the intracellular delivery of biomolecular drugs" <u>Bioconjugate Chem.</u> 14:412-419.	
	60	Nishikura (2001) "A short primer on RNAi: RNA-directed RNA polymerase acts as a key catalyst" <u>Cell</u> 107:415-418.	
	61	Paddison et al. (2002) "Stable suppression of gene expression by RNAi in mammalian cells" <u>Proc. Natl. Acad. Sci. USA</u> 99:1443-1448	
	62	Paul et al. (2002) "Effective expression of small interfering RNA in human cells" <u>Nature Biotech</u> 29:505-507.	
	63	Pettit et al. (1997) "Chemical two-photon uncaging: a novel approach to mapping glutamate receptors" <u>Neuron</u> 19:465-471.	
	64	Rehman et al. (2003) "Protection of islets by <i>in Situ</i> peptide-mediated transduction of the Ikappa B kinase inhibitor Nemo-binding domain peptide" <u>J Biol Chem</u> 278:9862-9868.	
	65	Robbins et al. (2002) "Peptide delivery to tissues via reversibly linked protein transduction sequences" <u>Biotechniques</u> 33:190-192.	
	66	Saez et al. (1997) "Inducible gene expression in mammalian cells and transgenic mice" <u>Curr. Opin. Biotechnol.</u> 8:608-616.	
✓	67	Schmid et al. (2002) "Combinatorial RNAi: a method for evaluating the functions of gene families in Drosophila" <u>Trends Neurosci.</u> 25(2):71-4.	

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/AB/	68	Schwarz et al. (2002) "Evidence that siRNAs function as guides, not primers, in the Drosophila and human RNAi pathways" <u>Mol. Cell</u> 10:537-548.	
	69	Schwartz et al. (2000) "Peptide-mediated cellular delivery" <u>Curr Opin Mol Ther</u> 2:162-7.	
	70	Shigeri et al. (2001) "Synthesis and application of caged peptides and proteins" <u>Pharmacology & Therapeutics</u> 91:85-92.	
	71	Shimoboji et al. (2002) "Photoresponsive polymer-enzyme switches" <u>Proc. Natl. Acad. Sci. USA</u> 99:16592-16596.	
	72	Simeoni et al. (2003) "Insight into the mechanism of the peptide-based gene delivery system MPG: Implications for delivery of siRNA into mammalian cells" <u>Nucl Acids Res</u> 31: 2717-2724.	
	73	Tuschl and Borkhardt (2002) "Small interfering RNAs: A revolutionary tool for the analysis of gene function and gene therapy" <u>Molecular Interventions</u> 2:158-167	
	74	Ueda (2001) "Rnai: a new technology in the post-genomic sequencing era" <u>J Neurogenet</u> . 15(3-4):193-204	
	75	Ullu et al. (2002) "RNA interference: advances and questions" <u>Philos Trans R Soc Lond B Biol Sci.</u> 357(1417):65-70	
	76	Wagner et al (1992) "Influenza virus hemagglutinin HA-2 N-terminal fusogenic peptides augment gene transfer by transferrin-polylysine-DNA complexes: toward a synthetic virus-like gene-transfer vehicle" <u>Proc Natl Acad Sci</u> 89:7934-38.	
	77	Walker et al. "Signaling pathways underlying eosinophil cell motility revealed by using caged peptides" <u>Proc. Natl. Acad. Sci. USA</u> (1998) 95:1568-1573.	
	78	Watanabe (Jan.13 2003) "Knocking Down Genes for Fun and Function" <u>Scientist</u> 17(1):36.	
	79	Zamore (2001) "RNA interference: Listening to the sound of silence" <u>Nature Structural Biology</u> 8:746-750.	
	80	Zou et al. (2002) "Catalytic subunit of protein kinase A caged at the activating phosphothreonine" <u>J. Amer. Chem. Soc.</u> 124:8220-8229.	
▼	81	Zou et al. (2001) "Caged Thiophosphotyrosine Peptides" <u>Angew. Chem. Int. Ed.</u> 40:3049-3051.	

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